

AMENDMENTS TO THE CLAIMS

1. (Original) Greywater recycling system, primarily for the economical flushing of toilets, consisting of one or more tanks (1), bath tub (22), a washing machine (30) provided with a primary water pump (21), water supply pipe (3), greywater pipe (19), flushing conduit (8), flushing valve (7), and in the tank (1) a floating ball (6) is characterised, that the floating ball (6) is fixed by means of a pivoted support arm (16) to the side wall of the tank (1) allowing it to swing in vertical plane, there is a greywater column (11) above the floating ball (6), and an actuating shaft (15) fixed onto the floating ball (6), the actuating shaft (15) passing through the greywater column (11) above the floating ball (6) is connected to the clean water fill valve (4) of the water supply pipe (3).

2. (Original) Greywater recycling system according to claim 1, wherein the washing machine (30) being connected to the bath tub (22) with a greywater suction pipe (32) is provided with a secondary water pump (31), which secondary water pump (31), is connected to the tank (1) by means of a secondary greywater drain pipe (35).

3. (Original) Greywater recycling system according to claim 2, wherein there is an in-line water sensor (36) mounted before the secondary water pump (31) enabling the secondary water pump (31) to start automatically, and a non-return valve (38) is mounted into the secondary greywater drain pipe (35).

4. (Currently amended) Greywater recycling system according to ~~any of claims 1 to 3~~, claim 1, wherein there is a stopping member (18) fixed to the wall of the tank (1), determining the uppermost position of the floating ball (6)

closing the clean water fill valve (4) as well as the ratio of greywater (11) and clean supply water (12).

5. (Currently amended) Greywater recycling system according to ~~any of claim 1 to 4~~, claim 1, wherein the primary water pump (21) is connected to the tank (1) by means of the primary greywater drain pipe (27), which primary greywater drain pipe (27) is provided with a non-return valve (38).

6. ((Currently amended) Greywater recycling system according to ~~any of claim 1 to 5~~, claim 1, wherein the greywater tube (19) is connected through the greywater valve (2) to the primary greywater drain pipe (27), and in given cases to the secondary greywater drain pipe (35).

7. (Currently amended) Greywater recycling system according to ~~any of claim 1 to 6~~, claim 1, wherein on the outlet of the greywater pipe (19) there are one or more filtering units (13) suitably mounted within the tank (1).

8. (Currently amended) Greywater recycling system according to ~~any of claim 1 to 7~~, claim 1, wherein the tank (1) has a compensating air orifice (17) for the compensation of the atmospheric pressure.

9. (Currently amended) Greywater recycling system according to ~~any of claim 1 to 8~~, claim 1, wherein the tank (1) is provided with an overflow tube (10), the diameter of which is greater than or equal to that of the greywater pipe (19).

10. (New) Greywater recycling washing machine together with greywater tank, for the economical flushing of toilets, consisting of a combined Greywater WC tank

(1) built together in one single body unit with a washing machine (30) provided with a primary and secondary water pumps (21,31), having a filtering and disinfecting unit (13,14), having a compensating air orifice (17) and overflow tube (10), having a water supply pipe (3), said unit connected to the bath tube (22) with a greywater pipe (19), said unit having a flushing conduit (8), flushing valve (7), and in the combined Greywater WC tank (1) a floater (6), wherein the floater (6) is fixed by means of a support in the lower part of the tank (1) allowing it to move in vertical plane, there is a greywater column (11) above the floater (6), and an actuating shaft (15) fixed onto the floater (6), the actuating shaft (15) passing through the greywater column (11) above the floater (6) is connected to the clean water fill valve (4) of the water supply pipe (3) and the central electronic control unit is connected to the primary and secondary water pumps (21, 31) as well as to the A, B, C, X, Y and Z electro-magnetic valves, to the inline water sensor (36), to the overflow sensor in the tank, to the adjusting selector button mounted on the washer, to the greywater selector switch button, to the clean water flushing selector button, to the timer adjusting switch, to the overflow sensor, to the toilet occupancy sensor and to the flush activating unit.

11. (New) Greywater recycling washing machine together with greywater tank according to claim 1, wherein more than one tank (1), is connected to the system.

12. (New) Greywater recycling washing machine together with greywater tank according to claim 1, wherein the floater (6) can be of any shape in the tank (1) which floater (6) is on the floater guiding axle (39) provided with a limiting element (40), and which floater (6) is fixed, to the bottom of the tank (1) by chain or other filament (41).

13. (New) Greywater recycling washing machine together with greywater tank according to claim 1, wherein the tank (1) is built in one single unit with the washer (30) thus forming one and the same body.

14. (New) Greywater recycling washing machine together with greywater tank according to claim 1, wherein the water supply pipe (3) has a water spray function after the water fill valve (4) to spray water to the inner sides of the tank (1).

15. (New) Greywater recycling washing machine together with greywater tank according to claim 1, wherein the washer (30) is equipped with one or two water pumps (21, 31) having the output of more than 100W having a pressure output of more than 0.4 bar, and connected to a tank (1) by a greywater pipe (19) .

16. (New) Greywater recycling washing machine together with greywater tank according to claim 1, wherein the greywater suction pipe (32) and the primary greywater drain pipe (27) is equipped with a water diversion Suldi valve diverting the water to the sewage canal, and the top of the housing of the filters (13) is connected by a diverting tube to the overflow tube (9, 10).

17. (New) Greywater recycling washing machine together with greywater tank according to claim 1, wherein the washer (30) is equipped with one or two water pumps (21, 31) having the output of 100 W to 400 W, having a pressure output of 0.4 to 1 bar, and connected to the bath tube (22), with a greywater suction pipe (32) and also connected to a WC flushing tank (1) by means of a greywater drain pipe.

18. (New) Greywater recycling washing machine together with greywater tank according to claim 1, wherein the single water pump (21) of the washer (30) has three inflow orifices each of which has an electro-magnetic valve before the water pump (21) :

- on the supply pipe (23) the ,,A" clean water inlet valve,
 - on the washing space outlet pipe (28b) the "B" washing water inlet valve,
 - on the greywater suction pipe (32) the ,,C" bathing water inlet valve,
- and the water pump (21) also has two outflow orifices, each of which is provided with an electro-magnetic valve after the water pump (21) :
- "X" clean water outlet valve on the washing space inlet pipe (28a),
 - "Y" greywater outlet valve on the greywater drain pipe (27, 35) , which valves can be opened and closed in pairs. The simultaneous opening of "A" and "X" electro-magnetic valves allows the inflow of clean

water. The simultaneous opening of "B" and "Y" valves allows the outflow of the greywater from washing, and the simultaneous opening of "C" and "Y" allows the drainage of greywater from the bath tube.

19. (New) Greywater recycling washing machine together with greywater tank according to claim 1, wherein the washer (30) is equipped with a two-directional water pump (42), which has three orifices before the water pump (42) each of which has an electro-magnetic valve (42) :

- on the supply pipe (23) the ,,A" clean water inlet valve in direct flow operation, on the greywater suction pipe (32) the ,,C" bathing water inlet valve in direct flow operation,
- on the greywater drain pipe (27, 35) the "Z" greywater outlet valve in reverse flow operation, and the two-directional water pump (42) also has two orifices after the two-directional water pump (42), each of which is provided with an electro-magnetic valve:
- "X" clean water valve on the washing space connection pipe (28a), which is a clean water inlet valve in direct flow operation, and in reverse flow operation "X" valve is grey water drain valve,
- "Y" greywater outlet valve on the greywater drain pipe (27, 35) in direct flow operation; which valves can be opened and closed coupled in pairs. The simultaneous opening of "A" and "X" electro-magnetic valves in direct flow operation allows the inflow of clean water. The simultaneous opening of "X" and "Z" valves in reverse flow operation allows the outflow of the greywater from washing, and the simultaneous opening of "C" and "Y" in direct flow operation allows the drainage of greywater from the bath tube.

20. (New) Greywater recycling washing machine together with greywater tank according to claim 1, wherein the support arm (16) holding the floater (6) in the tank (1) is connected directly to the clean water fill valve (4) on the clean water supply pipe (3), which clean water supply pipe goes through the greywater column

(11) which is above the floater (6) then overhangs above the greywater column (11), and the clean water supply orifice (3a) is above the greywater column (11).

21. (New) Greywater recycling washing machine together with greywater tank according to claim 1, wherein the toilet dual flushing operating unit is connected to said washer pump(s) and is controlled with the simultaneous operation of said inlet and outlet valves in pairs, by the central electronic control unit of the washer.

22. (New) Greywater recycling washing machine together with greywater tank according to claim 12, wherein there is a sensor mounted near the toilet to detect if the toilet is in use, said sensor is connected to the control unit of the washer, emitting possible signals about toilet occupancy, said possible occupancy signals having suspending effect on greywater processing activity.

23. (New) Greywater recycling washing machine together with greywater tank according to claim 12, wherein there is an overflow sensor mounted within the greywater tank of the washer, said overflow sensor connected to the control unit of the washer, providing possible signal for actuating said pump and water valves to empty the graywater surplus within the greywater tank into the toilet.

24. (New) Greywater recycling washing machine together with greywater tank according to claim 12, wherein an adjusting selector button mounted on the washer and connected to the control unit of the washer, said selector button determining that washing water and/or first rinsing water and/or second rinsing water can go into the graywater tank on top of the washer or directed into the toilet.

25. (New) Greywater recycling washing machine together with greywater tank according to claim 12, wherein a greywater selector switch button mounted on the washer and connected to the control unit of said washer, said greywater selector switch determining greywater flushing quantity.

26. (New) Greywater recycling system according to claim 12, wherein a clean water flushing selector button mounted on said washer and connected to said control unit of the washer, said clean water flushing selector button determining the clean water quantity to flush with following flushing action by greywater,

27. (New) Greywater recycling washing machine together with greywater tank according to claim 12, wherein there is a timer adjusting switch on the washer connected to said control unit of said washer, said timer adjusting switch connected to a control lamp and buzzer, said timer adjusting switch determining the time period after which said control lamp and buzzer is activated reminding to check filters and disinfecting agent in the filtering-disinfecting unit.

28. (New) Greywater recycling washing machine together with greywater tank according to claim 12, wherein there is a flush activating unit mounted near the toilet, said flush activating unit connected to the control unit of said washer, said flush activating unit consisting of two activators, one for smaller and the other one for larger quantity of greywater flushing.

29. (New) Greywater recycling washing machine together with greywater tank according to claim 12, wherein the top of the greywater tank built on top of said washer is a removable lid enabling easy access to the inside of said tank and to its mechanical and electronical components for the purpose of easy maintenance.